

CHRISTOPHER B. JACKSON

Physics Department
Brookhaven National Laboratory
Upton, NY 11973

(home) (631) 828-8201

(work) (631) 344-8256

cb.jackson@mac.com

<http://quark.phy.bnl.gov/~jackson>

EDUCATION

BS in Physics (summa cum laude)

April 2000

Dept. of Natural Sciences, University of North Florida, Jacksonville, FL

MS in Physics

April 2002

Dept. of Physics, Florida State University, Tallahassee, FL

Ph.D. in Theoretical High Energy Physics (Thesis Advisor: Laura Reina)

August 2005

Dept. of Physics, Florida State University, Tallahassee, FL

PROFESSIONAL POSITIONS

Brookhaven National Laboratory, High Energy Theory Group, Upton, NY —

Associate Researcher, 2005-2008.

ASSISTANTSHIPS AND OTHER TEACHING EXPERIENCE

Florida State University, Dept. of Physics, Tallahassee, FL —

Research Assistant (High Energy Physics), 2001-2004.

Florida State University, Dept. of Physics, Tallahassee, FL —

Co-director of Independent Study Group "Compact Stars for Undergraduates", 2004.

Florida State University, Dept. of Physics, Tallahassee, FL —

Teaching Assistant (Astronomy Lab Instructor), 2000-2001.

University of North Florida, Academic Center for Excellence, Jacksonville, FL —
Tutor of Math and Physics, 1998-2000.

Florida State University, Dept. of Physics, Tallahassee, FL —
Junior Fellow (Research Experience for Undergraduates), 1999.

AWARDS AND HONORS

Dirac-Hellman Award for Theoretical Physics, Excellence in theoretical physics by a graduate student or post-doctoral researcher, Florida State University, 2005.

Outstanding Senior in Physics, University of North Florida, 2000.

Outstanding Sophomore in Physics, University of North Florida, 1999.

COMPUTATIONAL EXPERIENCE

Operating Systems: Unix, Linux, Windows and Mac OS.

Programming Languages: Fortran, C and C++.

Symbolic Computation: FORM, Maple and Mathematica.

PUBLICATIONS

RS@NLO: Chiral-logarithmic Corrections to the S Parameter in Models with a Warped Extra Dimension, (with H. Davoudiasl, S. Gopalakrishna and A. Soni), in preparation.

Unitarity and Electroweak Constraints on Models with a Triplet Higgs, (with M.-C. Chen and S. Dawson), in preparation.

Higgs Working Group Summary Report, (with S. Dawson et al.), in proceedings of the Les Houches Workshop “Physics at TeV Colliders”, Les Houches, France, 11-29 June 2007; arXiv:0803.1154.

SUSY QCD Corrections to Associated Higgs-bottom Quark Production, (with S. Dawson), arXiv:0709.4519.

Higgs Boson Production with One Bottom Quark Including Higher-order Soft-gluon Corrections, (with B. Field and L. Reina), Phys. Rev. **D76**, 074008 (2007); arXiv:0705.0035.

One-Loop Corrections to the S and T Parameters in Higgsless Models, (with S. Dawson), Phys. Rev. **D76**, 015014 (2007); hep-ph/0703299.

Hadronic Higgs Production with Heavy Quarks at the Tevatron and LHC, (with S. Dawson, L. Reina and D. Wackeroth), Contribution to the TeV4LHC Workshop; hep-ph/0603112.

Higgs Production in Association with Bottom Quarks at Hadron Colliders, (with S. Dawson, L. Reina and D. Wackeroth), Mod. Phys. Lett. **A21**, 89-110 (2006); hep-ph/0508293.

Higgs Boson Production with Heavy Quarks at Hadron Colliders, (Ph.D. Thesis), UMI-31-98225 (2005).

Higgs Boson Production with Bottom Quarks at Hadron Colliders, (with S. Dawson, L. Reina and D. Wackeroth), in Proceedings of the Meeting of the Division of Particles and Fields (DPF04), Int. J. Mod. Phys. **A20**, 3353-3355 (2005); hep-ph/0409345.

Compact Stars for Everyone: A Real Experiment, (with J. Taruna, S.L. Pouliot, B.W. Ellison, D.D. Lee and J. Piekarewicz), Eur. J. Phys. **26**, 695-709 (2005); astro-ph/0409348.

Higgs Boson Production with One Bottom Quark Jet at Hadron Colliders, (with S. Dawson, L. Reina and D. Wackeroth), Phys. Rev. Lett. **94**, 031802 (2005); hep-ph/0408077.

The Higgs Working Group: Summary Report 2003, (with K.A. Assamagan et al.), in proceedings of the 3rd Les Houches Workshop: Physics at TeV Colliders; hep-ph/0406152.

Theoretical Progress for the Associated Production of a Higgs Boson with Heavy Quarks at Hadron Colliders, (with S. Dawson, L.H. Orr, L. Reina and D. Wackeroth), in proceedings of the International Europhysics Conference on High-Energy Physics (HEP2003); hep-ph/0311316.

NLO QCD Corrections to Hadronic Higgs Production with Heavy Quarks, (with S. Dawson, L.H. Orr, L. Reina and D. Wackeroth), in proceedings of the 10th International QCD Conference (QCD03); hep-ph/0311105.

Exclusive Higgs Boson Production with Bottom Quarks at Hadron Colliders, (with S. Dawson, L. Reina and D. Wackeroth), Phys. Rev. **D69**, 074027 (2004); hep-ph/0311067.

Associated Higgs Production with Top Quarks at the Large Hadron Collider: NLO QCD Corrections, (with S. Dawson, L.H. Orr, L. Reina and D. Wackeroth), Phys. Rev. **D68**, 034022 (2003); hep-ph/0305087.

Transition Strengths and Band Determinations in Zr^{86} , (with M. Wiedeking et al.), Phys. Rev. **C67**, 034320 (2003).

TALKS

MSSM Higgs Production with Bottom Quarks: Recent Theoretical Results, Phenomenology Institute Seminar, University of Wisconsin-Madison, Madison, WI, November 30, 2007.

Higgs Boson Production with Bottom Quarks: Recent Developments, High Energy Theory Lunch Seminar, Brookhaven National Laboratory, Upton, NY, September 28, 2007.

Higgsless Models at One-Loop, Brookhaven Forum 2007: New Horizons at Colliders, Brookhaven National Laboratory, Upton, NY, May 31, 2007.

S and T at One Loop in Higgsless Models, Pheno 2007 Symposium, Madison, WI, May 7, 2007.

One-loop Corrections to the S and T Parameters in Higgsless Models, Department of Energy Annual Review, Brookhaven National Laboratory, April 16, 2007.

Life Without a Higgs: Masses and Unitarity from Extra Dimensions, Florida State University High Energy Physics Seminar, Tallahassee, FL, April 3, 2007.

One-loop Corrections to S and T in Models with Extended Gauge Sectors, Meeting of the Division of Particles and Fields (DPF2006), Honolulu, HI, October 30, 2006.

Higgsless Models of EWSB and the EW Chiral Lagrangian, Pheno 2006 Symposium, Madison, WI, May 16, 2006.

Life Without a Higgs: Unitarity from Extra Dimensions, Brookhaven National Laboratory, December 2, 2005.

MSSM Higgs Boson Production with Bottom Quarks, TeV4LHC Workshop, Fermilab, October 20, 2005.

Higgs Boson Production with Heavy Quarks at Hadron Colliders, Dissertation Defense, Florida State University, June 2005.

Bottom Quark PDF Uncertainties and Higgs+b Production, TeV4LHC Workshop, Brookhaven National Lab, February 2005 and APS Meeting, Tampa, FL, April 16, 2005.

Higgs Boson Production with Bottom Quarks at Hadron Colliders, UF-FSU Symposium on High Energy Phenomenology, Tallahassee, FL, December 1, 2004.

Higgs Boson Production with a Single Bottom Quark at Hadron Colliders, TeV4LHC Workshop, Fermilab, September 2004.

Higgs Boson Production with Bottom Quarks at Hadron Colliders, Meeting of the Division of Particles and Fields (DPF2004), Riverside, CA, August 27, 2004.

The Muon Anomalous Magnetic Dipole Moment: A Search for New Physics, Florida State University, Tallahassee, FL, March 2001.

SCHOOLS AND CONFERENCES

Brookhaven Forum 2007: New Horizons at Colliders, Brookhaven National Laboratory, Upton, NY, May 31-June 2, 2007.

Pheno 2007 Symposium, Madison, WI, May 7-9, 2007.

Meeting of the Division of Particles and Fields (DPF2006), Honolulu, HI, October 29-November 3, 2006.

Pheno 2006 Symposium, Madison, WI, May 15-17, 2006.

TeV4LHC Workshop, Fermilab, October 20-22, 2005.

APS April Meeting, Tampa, FL, April 16-19, 2005.

TeV4LHC Workshop, Brookhaven National Laboratory, February 3-5, 2005.

Meeting of the Division of Particles and Fields (DPF2006), Riverside, CA, August 26-31, 2004.

PierreFest, University of Florida, Gainesville, FL, February 1-2, 2003.

Theoretical Advanced Study Institute (TASI) in Elementary Particle Physics, University of Colorado at Boulder, Boulder, CO, June 2-29, 2002.

Conference Experience for Undergraduates, Division of Nuclear Physics of the American Physical Society, Asilomar, Pacific Grove, CA, October 20-23, 1999.

